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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,518

04/09/2004

Wolfgang Holzapfel

56/429

9859

7590

09/08/2006

Brinks Hofer Gilson & Lione  
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EXAMINER

PHAM, HOA Q

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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22

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/821,518		HOLZAPFEL ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Hoa Q. Pham		2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 14-26 and 29 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 12, 13, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/14/04, 7/2/04, 1/12/06</u>                                  | 6) <input type="checkbox"/> Other: ____.                          |

8/14/06

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Drawings***

2. Drawings filed on 4/9/04 have been accepted.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 19 recites the limitation "said diaphragm" in line 1. There is insufficient antecedent basis for this limitation in the claim. Should claim 19 depend on "claim 16"?

- b. Claim 20 is dependent on claim 19; therefore, inherit the deficiencies of claim 19.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8, 11, 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Gordon et al (WO 02/084223) (hereinafter "Gordon").

Regarding claims 1, 2, 11 and 21-23, Gordon (of record) discloses an absolute position measurement comprises a light source (LS1 or LS2) that emits light in a direction towards a measuring graduation (18) that generates modified light from the emitted light; a detector (26, 50) that receives the modified light and a lens array (25, 52) disposed upstream of the detector and comprises a plurality of optical lens (page 10, lines 21-25), that generates a defined image of a region of the measuring graduation, scanned by the emitted light, on the detector, wherein an image magnification of the lens array is equal to 1 (page 6, lines 7-15; page 12, lines 9-12; figure 8).

Regarding claim 3-4 and 24-26, see figures 5 and 8 for lens array (28A and 28B or 25 and 52).

Regarding claims 5-8, see first lens group (28A) and second lens group (28B).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14-17, 19 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon in view of Fujimoto et al (US 2001/0024327A1).

Regarding claim 14, Gordon does not teach that the two lens groups (28A and 28B) having different focal length; however, such a feature is known in the art as taught by Fujimoto et al. Fujimoto et al (of record) discloses the use of two groups of lens array (20A and 20D) having different focal lengths (see figure 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the lens array groups of Gordon by two groups lens array of Fujimoto because they are both function in the same manner (i.e., using in an image reading apparatus).

Regarding claims 15-17, 19 and 29; Fujimoto et al also teaches the use of a light shielding layer (4 and 30) for preventing cross talk of light between two adjacent lenses (2) (paragraph [(0037)]). For the same purpose suggested by Fujimoto et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Gordon a diaphragm or shielding layer as taught by Fujimoto et al.

9. Claim 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon and Fujimoto et al as applied to claims 1-8 and 16-17 above, and further in view of Bruno-Raimodi et al (6,437,345) (hereinafter "Bruno").

Bruno teaches that the diaphragm (16) can be arranged between the two lens groups (14,18) (see figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the light shield of Fujimoto et al as taught by Bruno because they would function in the same manner.

***Allowable Subject Matter***

10. Claims 9, 10, 12-13, 20, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references relate to position measurement apparatus: Benner et al (6,963,409 and US 2004/0227958A1), Dubik et al (4,112,295) and Pelgrom et al (4,766,307).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2877

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hoa Q. Pham  
Primary Examiner  
Art Unit 2877

HP  
September 1, 2006